NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

CLEARING AND SNAGGING

(Ft.)

CODE 326

DEFINITION

Removing snags, drifts, or other obstructions from a channel.

SCOPE

This standard applies to the clearing of trees and brush and the removal of sediment bars, drifts, logs, snags, boulders, piling, piers, headwalls, debris, and other obstructions from the flow area of a natural or excavated channel. It also applies to selective snagging, which is the selective removal of obstructions from the channel and streambanks to increase its capacity to carry water.

PURPOSE

To increase the flow capacity of a channel by improving its flow characteristics; to prevent bank erosion by eddies; to reduce the forming of bars; and to minimize blockages by debris and ice.

Special attention shall be given to restoring, maintaining or improving landscape resources and habitat for fish and wildlife, where applicable.

CONDITIONS WHERE PRACTICE APPLIES

Any channel or floodway where the removal of trees, brush, and other obstructions is needed to accomplish one or more of the listed purposes. If clearing and snagging are likely to result in channel erosion, impairment to the landscape resource quality, or impairment to habitat for fish and wildlife, either the clearing and snagging shall not be done or practices to minimize such damages shall be applied concurrently with the clearing and snagging.

DESIGN CRITERIA

The capacity of the channel, both before and after improvement, shall be determined by use of Manning's Formula, using applicable values of the retardance factor "n," for both conditions. The value of "n" used to determine channel capacity after improvement shall reflect the degree of maintenance expected in future years.

The area to be cleared and snagged shall include the perimeter of the channel, the flow area of the floodway, or both. Adjacent trees or other objects that may fall into the channel shall also be included. Clearing and snagging may be specified for other areas, including berms, for use as temporary disposal areas or travelways, or for planned conservation uses.

Channel stability shall not be impaired by clearing and snagging. The criteria for determining channel stability in open channels (582) shall be complied with. The effect of removing obstructions on downstream reaches shall be considered.

PLANS AND SPECIFICATIONS

Plans and specifications for clearing and snagging shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

NRCS, LA
October 1980

PLANNING CONSIDERATIONS FOR WATER QUANTITY AND QUALITY

Quantity

1. Possible downstream flooding.

2. Effect of changed drawdown on bank stability.

3. Effect of changed flow conditions on ground water recharge.

Quality

1. Effects of discharge on the flood plain and channel relative to erosion and sediment production, both during construction and after establishment.

2. Effects sediment load, sediment-attached substances, organic loadings.

3. Relationships between stream quality and aquifer quality where ground water recharge occurs.

4. Temporary and long-term effects on visual quality of water and landscape.

5. Effects on onsite and downstream water temperatures.